Rainfall Event Based Temporary Spill Reduction Program for Pepacton Reservoir February 8, 2006

On April 21, 2004, the Parties to the 1954 U.S. Supreme Court Decree (Decree Parties) approved an interim program for managing releases from the New York City Delaware Basin reservoirs. That interim program was embodied in Delaware River Basin Commission (DRBC) Resolution No. 2004-3 Docket No. D-77-20 (Revision 7). In approving that resolution, the Decree Parties committed to continuing discussions to develop and implement by May 31, 2007 a long-term flexible program to manage releases from the City Delaware Basin reservoirs to better address fisheries in the tailwaters below those reservoirs; the Decree Parties agreed that implementation of such a program required consideration of other related issues.

The Decree Parties agree that reduction of Pepacton Reservoir spill during flood events is a related issue that should be considered in the development of the long-term flexible program. The Decree Parties also agree that reduction of Pepacton Reservoir spill should not be delayed until final approval of a long-term flexible program occurs, and hereby agree to implement a temporary spill reduction program for the period ending March 31, 2006.

During active hydrologic conditions that result in full or nearly full storage in Pepacton Reservoir and overall in the New York City (NYC) Delaware Basin Reservoirs, the temporary spill reduction program described below will be implemented to reduce the volume of water spilled from Pepacton Reservoir. The program will attempt to manage a storage void to completely capture runoff produced by a one inch rainfall event, based on the National Weather Service's Upper Delaware Basin Water Supply Guidance for the reservoir's watershed (see sample guidance statement at 7., below), through supplemental releases above normal conservation rates from the East Delaware Release Chamber. The void shall be maintained during the period ending March 31, 2006. This temporary program is not part of any regular release program and does not establish a precedent for any future releases or actions.

Although the total volume of water spilled from Pepacton Reservoir may be reduced by this temporary program, it is unlikely that peak flows downstream will be significantly reduced. Pepacton Reservoir provides substantial attenuation of peak flows downstream even when the reservoir is spilling. The reservoir was not designed as a flood control reservoir and does not contain release works capable of releasing water at rates necessary for effective flood management operation; consequently, the Decree Parties continue to strongly urge communities downstream of the reservoir to take all necessary and prudent actions to improve flood preparedness and increase awareness of flood potential.

Temporary Pepacton Reservoir Spill Reduction Program:

- 1. Upon approval of this agreement by the Decree Parties, the City of New York will implement a temporary program to achieve limited reduction of Pepacton Reservoir storage through supplemental releases from the East Delaware Release Chamber.
- 2. For the period ending March 31, 2006, whenever the void in Pepacton Reservoir is less than the expected runoff volume that would result from a one inch rainfall event as predicted by the National Weather Service's Upper Delaware Basin Water Supply Guidance, supplemental releases will be made as necessary to maintain to the extent practicable, a void sufficient to completely capture the runoff volume forecasted for a one inch rainfall event.
- 3. The recommended rate of the supplemental release shall be established daily by NYC in consultation with the Delaware River Master. Releases above the normal conservation rate will be accounted for as special releases and be considered neither River Master directed releases nor conservation releases in accordance with DRBC Docket D-77-20 (Revision 7).
- 4. The River Master will manage the recommended supplemental releases in such a manner as to conserve the waters of the Delaware Basin in accordance with the following guidance:

- i. The flood stage for the East Branch Delaware River at Fishs Eddy is 13 feet. Accordingly, supplemental releases will not be made when the river stage for the East Branch Delaware River at Fishs Eddy is above 11 feet, or is forecasted to be above 11 feet within 48 hours of a planned supplemental release from Pepacton Reservoir. This guidance may be modified at any time if additional information demonstrates that a lower cautionary stage should be used to limit the supplemental releases.
- ii. Supplemental releases may be suspended if ice conditions threaten flood prone areas of the East Branch Delaware River below Pepacton Reservoir.
- iii. Supplemental releases will be designed so that the combined discharge from the East Delaware Release Chamber and the Downsville Dam spillway does not exceed 2,000 cubic feet per second (cfs). All supplemental releases will be discontinued when the spillway discharge exceeds 2,000 cfs.
- 5. This temporary program will be run concurrently with the existing snowpack-based spill reduction program. Voids maintained under the two programs shall not be additive.
- 6. If releases are made pursuant to this program and Pepacton Reservoir fails to reach 99% storage prior to the start of drawdown, the difference between the actual reservoir storage at the start of drawdown and the full capacity of the reservoir will be deducted from NYC's authorized Delaware Basin diversion for the upcoming hydrological year (i.e., year beginning June 1, 2006).
- 7. Example of National Weather Service Product:

http://www.srh.noaa.gov/productview.php?pil=FFHPA2

UPPER DELAWARE BASIN WATER SUPPLY GUIDANCE

APPROXIMATE RUNOFF (IN MILLIONS OF GALLONS) PRODUCED FROM EACH OF THE FOLLOWING 6-HOUR RAINFALL AMOUNTS (IN INCHES):

| : RAINFALL | | | | | | | |
|------------|-------|-------|---------------|--------|--------|-------|---------------|
| :IDENT | 0.1 | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 | LOCATION |
| :===== | ===== | ===== | ===== | ===== | | ===== | |
| CANN6DEL | 470/ | 2398/ | 4833/ | 10303/ | 16190/ | 27962 | :CANNONSVILLE |
| DWNN6DEL | 422/ | 2237/ | 4590 / | 9857/ | 15318/ | 26238 | : PEPACTON |
| NVRN6NVR | 28/ | 311/ | 666/ | 1494/ | 2459/ | 4403 | :NEVERSINK |
| .END | | | | | | | |
| \$\$ | | | | | | | |

8. This agreement will expire on May 31, 2007 and may be terminated at any time at the request of any Decree Party or may be modified with the unanimous consent of the Decree Parties.

Consent to Action by The City of New York

Consent of the Parties to the U.S. Supreme Court Decree in <u>New Jersey v. New York</u>, 347 U.S. 995 (1954), approving the Pepacton Reservoir Temporary Spill Reduction Program, February 8, 2006 through May 31, 2007, implemented by the City of New York.

| State of New Jersey | Date | State of New York | Date |
|---------------------|------|------------------------------|------|
| State of Delaware | Date | Commonwealth of Pennsylvania | Date |
| State of Delaware | Data | City of Novy Vouls | Data |
| State of Delaware | Date | City of New York | Date |